

What is claimed is:

1. A circuit for delaying power interruption to a non-volatile memory device comprising:
a power supply having an output connected to the non-volatile memory device;
a charge-storing device connected to the output of the power supply; and,
a DC-to-DC converter connected at its input to the charge-storing device and the power
supply and connected at its output to the non-volatile memory device such that upon
interruption of the power supply, the charge-storing device provides sufficient input
voltage to the DC-to-DC converter to provide rated output to the non-volatile memory
device for a time sufficient for the non-volatile memory device to complete a write
cycle.
2. A voltage booster circuit as recited in claim 1 wherein the charge-storing device is a
capacitor.
3. A voltage booster circuit as recited in claim 1 wherein the charge-storing device is an
electrolytic capacitor.
4. A voltage booster circuit as recited in claim 1 wherein the charge-storing device is a super
capacitor.
5. A voltage booster circuit as recited in claim 1 wherein the charge-storing device
comprises a plurality of capacitors connected in parallel.
6. A voltage booster circuit as recited in claim 1 further comprising an inductor connected in
parallel with the DC-to-DC converter.
7. A voltage booster circuit as recited in claim 6 further comprising a diode connected in
series between the inductor and the output of the DC-to-DC converter.

8. A voltage booster circuit as recited in claim 1 further comprising a diode at the input of the charge storing device connected such that the flow of electric current from the charge-storing device to the power supply is prevented.

9. A method of supplying power to a non-volatile memory device comprising:
providing a charge-storing device;
connecting the input of a DC-to-DC converter to the charge-storing device; and,
connecting the output of the DC-to-DC converter to the non-volatile memory device.

10. A method of supplying power to a non-volatile memory device comprising:
providing regulated power from a power supply;
storing electrical charge from the power supply in a charge-storing device;
transferring the stored electrical charge upon interruption of the power supply to the input of a DC-to-DC converter at a potential sufficient to operate the DC-to-DC converter;
and
supplying regulated DC power from the output of the DC-to-DC converter to the non-volatile memory device for a time sufficient for the non-volatile memory device to complete a full write cycle.

11. A method of preventing data corruption in a non-volatile memory device comprising:
determining whether a control signal sent to the non-volatile memory device is a reset signal;
delaying the control signal if the control signal is a reset signal for time sufficient for the non-volatile memory device to complete a memory write cycle.

12. A method of preventing data corruption in a non-volatile memory device in a processor-based system comprising:
intercepting control signals sent to the non-volatile memory device;
determining whether a control signal sent to the non-volatile memory device is a reset signal;
delaying the control signal if the control signal is a reset signal for time sufficient for the non-volatile memory device to complete a memory write cycle.

13. A method as recited in claim 12 wherein the reset signal is sent by the processor.
14. A method as recited in claim 12 wherein the reset signal is sent by a power monitor.
15. A method of preventing data corruption in a non-volatile memory device comprising:
determining whether a control signal sent to the non-volatile memory device is a reset signal;
starting a timer if the control signal is a reset signal;
sending the reset control signal to the non-volatile memory device after a pre-selected time interval.
16. A method as recited in claim 15 wherein the pre-selected time interval is equal to or greater than the time required for the non-volatile memory device to complete a memory write cycle.
17. A method of preventing data corruption in a non-volatile memory device comprising:
determining whether a control signal sent to the non-volatile memory device is a reset signal;
delaying the control signal if the control signal is a reset signal for time sufficient for the non-volatile memory device to complete a memory write cycle;
providing regulated power from a power supply to the non-volatile memory device;
storing electrical charge from the power supply in a charge-storing device;
transferring the stored electrical charge upon interruption of the power supply to the input of a DC-to-DC converter at a potential sufficient to operate the DC-to-DC converter;
and
supplying regulated DC power from the output of the DC-to-DC converter to the non-volatile memory device for a time sufficient for the non-volatile memory device to complete a write cycle.
18. A method as recited in claim 17 wherein the non-volatile memory device is a flash memory.

19. A method as recited in claim 18 wherein the flash memory is a NAND-type flash memory.
20. A circuit as recited in claim 1 wherein the non-volatile memory device is a NAND-type flash memory.